Ed
1-6 (Cancelled)

7. A method of providing pulsewidth modulated bitline and wordline signals for performing spatial to frequency transforms of analog signals from sensor elements of a CMOS sensor array, said transform being characterized by a basis function, comprising the steps of:

dividing a wordline period into intervals, such that each interval has an accumulated pulsewidth corresponding to a coefficient of said basis function, thereby providing a pulsewidth modulated wordline signal; and

dividing a bitline period into said intervals and into subintervals, such that each subinterval of each interval has an accumulated pulsewidth corresponding to a coefficient of said basis function.

8. The method of Claim 7, wherein said transform is a discrete cosine transform.

9. The method of Claim 7, wherein said transform is a discrete articulated trapezoid transform.

10-16 (Cancelled)

17. The method of Claim 8, wherein:

said step of dividing the wordline period into intervals includes dividing a wordline period T into eight intervals of duration Tcos(nx11.25), where n is an integer 0, 1, 2, 3, 4, 5, 6 or 7.

18. The method of Claim 7, wherein:

said step of dividing the wordline period into intervals includes dividing a wordline period T into intervals t0 = 0, t1 = 0.19T, t2 = 0.38T, t3 = 0.55T, t4 = 0.71T, t5 = 0.83T, t6 = 0.92T and t7 = T.

19. The method of Claim 18, wherein:

said step of dividing a bitline period into said intervals and into subintervals includes

dividing an interval t1-t0 into subintervals t11 = 0.19(t1-t0), t12 = 0.38(t1-t0), t13 = 0.55(t1-t0), t14 = 0.71(t1-t0), t15 = 0.83(t1-t0), t16 = 0.92(t1-t0) and t17 = (t1-t0),

dividing an interval t2-t1 into subintervals t21 = 0.19(t2-t1), t22 = 0.38(t2-t1), t23 = 0.55(t2-t1), t24 = 0.71(t2-t1), t25 = 0.83(t2-t1), t26 = 0.92(t2-t1) and t27 = (t2-t1),

dividing an interval t3-t2 into subintervals t31 = 0.19(t3-t2), t32 = 0.38(t3-t2), t33 = 0.55(t3-t2), t34 = 0.71(t3-t2), t35 = 0.83(t3-t2), t36 = 0.92(t3-t2) and t37 = (t3-t2),

dividing an interval t4-t3 into subintervals t41 = 0.19(t4-t3), t42 = 0.38(t4-t3), t43 = 0.55(t4-t3), t44 = 0.71(t4-t3), t45 = 0.83(t4-t3), t46 = 0.92(t4-t3) and t47 = (t4-t3),

dividing an interval t5-t4 into subintervals t51 = 0.19(t5-t4), t52 = 0.38(t5-t4), t53 = 0.55(t5-t4), t54 = 0.71(t5-t4), t55 = 0.83(t5-t4), t56 = 0.92(t5-t4) and t57 = (t5-t4),

dividing an interval t6-t5 into subintervals t61 = 0.19(t6-t5), t62 = 0.38(t6-t5), t63 = 0.55(t6-t5), t64 = 0.71(t6-t5), t65 = 0.83(t6-t5), t66 = 0.92(t6-t5) and t67 = (t6-t5),

dividing an interval t7-t6 into subintervals t71 = 0.19(t7-t6), t72 = 0.38(t7-t6), t73 = 0.55(t7-t6), t74 = 0.71(t7-t6), t75 = 0.83(t7-t6), t76 = 0.92(t7-t6) and t77 = (t7-t6).

20. The method of Claim 9, wherein:

said step of dividing the wordline period into intervals includes dividing a wordline period 10T into intervals t0 = 0, t1 = 2T, t2 = 4T, t3 = 6T, t4 = 7T, t5 = 8T, t6 = 9T and t7 = 10T.

REMARKS